



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/412,334	10/05/1999	THANH VAN DO	2687-8	9548

7590 09/15/2003

NIXON & VANDERHYE P C  
1100 NORTH GLEBE ROAD  
8TH FLOOR  
ARLINGTON, VA 22201

EXAMINER

ANYA, CHARLES E

ART UNIT

PAPER NUMBER

2126

DATE MAILED: 09/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/412,334

Applicant(s)

DO, THANH VAN

Examiner

Charles E Anya

Art Unit

2126

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 August 0200.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 27-51 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 27-51 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 27 – 31, 35 – 38, 40, 41, 44, 49 and 51 are rejected under 35**

**U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Claim 27 recites the limitation "said system" and "said system means" in lines 18, 20, and 22 and lines 22 respectively. There is insufficient antecedent basis for this limitation in the claim.

For the purpose of this office action the Examiner would assume that the phrases "said system" and "said system means" means "said communication system".

Claim 27 – 31, 35 – 38, 40, 41, 44 and 49 recites the limitation "mobility transparency means" and "mobility function (M)". There is insufficient antecedent basis for this limitation in the claim.

For the purpose of this office action the Examiner would assume that the phrases "said mobility transparency means" and "mobility function (M)" means "mobility transparency".

Claim 31 recites the limitation "the terminal domain" and "the telecom system domain". There is insufficient antecedent basis for this limitation in the claim.

Art Unit: 2126

For the purpose of this office action the Examiner would assume that the phrases "the terminal domain" and "the telecom system domain" means "a terminal domain" and "a telecom system domain" respectively.

Claim 35 recites the limitation "said broker". There is insufficient antecedent basis for this limitation in the claim.

For the purpose of this office action the Examiner would assume that the phrase "said broker" means "said routing broker".

Claim 51 recites the limitation "the DPE in question". There is insufficient antecedent basis for this limitation in the claim.

For the purpose of this office action the Examiner would assume that the phrase "the DPE in question" means "a DPE".

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

**Claims 27 – 30,34 and 38 – 40 are rejected under 35 U.S.C. 102(a) as being anticipated by Chapman et al. in "An overview of the**

**Telecommunications Information Networking Architecture” (pages 135 – 141).**

As to claim 27, Chapman teaches arrangement for simplifying the design and implementation of mobile services in a communication system, the communication system comprising distributed hardware and software components which interact in order to provide services to one or more users and the communication also comprises a means for supporting transparency (“...hides...” page 136 section 3 column 1 lines 22 – 32) and providing mobility transparency (“...portable and interoperable...” page 136 section 3 column 1 lines 22 – 32).

As to claim 28, Chapman teaches providing the mobility transparency as an addition to an already existing transparency (“...additional services...” page 136 paragraph 3 column 2 lines 32 – 42, “...trader...” page 138 paragraph 4 column 1 lines 28 – 44).

As to claim 29, Chapman teaches the integration of mobility function totally into the infrastructure of a platform (“...platform hides...” page 136 paragraph 3 column 1 lines 22 – 32).

As to claim 30, Chapman teaches the mobility transparency that is so adapted that computational objects are mapped to engineering objects so as to be invisible in the computational model of the application (“...without knowing...Engineering modeling...” page 138 paragraph 4 column 1 lines 19 – 27).

Art Unit: 2126

As to claim 34, Chapman teaches deciding from the computational model, whether an object belongs to the user domain or the telecom system domain by the application designer (“...computational viewpoint...” page 136 paragraph 3 column 2 lines 45 – 54).

As to claim 38, Chapman teaches Mobility transparency means support both the same interface type containing an invoke type operation (“...many interfaces...” page 137 lines 3 – 23).

As to claim 39, Chapman teaches an invoke operation that includes an object name, operation name and a parameter list (“...argument...” page 137 lines 3 – 23).

As to claim 40, see the rejection of claim 27.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 31,33 and 43 – 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman et al. in “An overview of the Telecommunications Information Networking Architecture” (pages 135 –**

Art Unit: 2126

**141) in view of Puder et al (System Support for Knowledge-Based Trading in Open Service Markets (pages 289 – 296).**

As to claim 31, Chapman is silent with reference to the mobility transparency means constituting the engineering object interceptor and being arranged at the boundary between two domains.

Puder teaches the mobility transparency means constituting the engineering object interceptor and being arranged at the boundary between two domains (“...interceptor, bridges...” page 293 lines 1 – 19). It would have been obvious to apply the teaching of Puder to the system of Chapman. One would have been motivated to make such a modification in order to bridge two different domains (page 293 line 8).

As to claim 33, see the rejection of claim 31.

As to claim 43, Puder teaches interaction between a proxy and an entity that transparent (“I behaves...” page 293 lines 8 – 9).

As to claim 44, see the rejection of claims 31 and 43.

As to claim 45, the interceptor (I, I' page 293 lines 1 – 19) provides an import/pull and export/push association between the service requester (R) and service provider (P) and as a result introduces a symmetric constellation.

As to claim 46, see the rejection of claim 45.

**Claims 32,41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman et al. in “An overview of the Telecommunications Information Networking Architecture” (pages 135 –**

Art Unit: 2126

**141) in view of Eckert et al. "TANGRAM: Development of Object-Oriented Frameworks for TINA-C-Based Multimedia Telecommunication Applications".**

As to claim 32, Chapman is silent with reference to an engineering model being developed by letting each CO to be mapped to one or more BEOs.

Eckert teaches an engineering model being developed by letting each CO to be mapped to one or more BEOs ("...frameworks..." page 47 lines 5 – 12, BEO page 49 lines 32 – 35, page 50 lines 1 – 20), interaction between CO1, CO2 belonging to the same cluster and communications between CO3, CO4 located in a telecom system and in different cluster and both clusters communicating via stubs, binders and protocols ("...COs...CORBA..." page 49 lines 22 – 36). It would have been obvious to apply the teaching of Eckert to the system of Chapman. One would have been motivated to make such a modification in order provide "interworking" between COs and extended Engineering Object Pattern (page 49 lines 28 – 29 and page 50 lines 1 – 20).

As to claims 41 and 42, see the rejection of claim 32.

**Claims 35,49 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman et al. in "An overview of the Telecommunications Information Networking Architecture" (pages 135 – 141) in view of U.S. Pat. No. 6,330,586 B1 to Yates et al.**



Art Unit: 2126

As to claim 35, Chapman is silent with reference to asking a routing broker for a specific server to perform a task, the routing broker locating and sending the request to the server and mobility functions playing the routing broker role.

Yates teaches the step of asking a routing broker for a specific server to perform a task, the routing broker locating and sending the request to the server and mobility functions playing the routing broker role ("customized guaranteed services..." Col. 16 Ln. 1 – 5). It would have been obvious to apply the teaching of Yates to the system of Chapman. One would have been motivated to make such a modification in order facilitate access to information and communication services and associated tools (Col. 15 Ln. 64 – 67).

As to claim 49, Chapman is silent with reference to the registration and customization of objects wanting to interact with other objects.

Yates teaches the registration and customization of objects wanting to interact with other objects (Notification Server Col. 10 Ln. 64 – 67, Col. 11 Ln. 1 – 4, Col. 16 Ln. 1 – 5). It would have been obvious to apply the teaching of Yates to the system of Chapman. One would have motivated to make such modification in order to register for notification (Col. 11 Ln. 1 – 4).

As to claim 51, Chapman is silent with reference to introducing a new redirection function on a DPE as well as the possibility of generating special stub for any dynamic objects.

Yates introducing a new redirection function on a DPE as well as the possibility of generating special stub for any dynamic objects (DPE stubs Col. 10 Ln. 56 – 67). It would have been obvious to apply the teaching of Yates to the system of

Art Unit: 2126

Chapman. One would have been motivated to make such a modification in order facilitate transmit and receive invocation messages to and from remote objects (Col. 10 Ln. 56 – 67).

**Claims 36,37,47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman et al. in “An overview of the Telecommunications Information Networking Architecture” (pages 135 – 141) in view of Tokmakoff et al. “Service Brokering in Object-Based Systems: Advanced Information Services” (pages 43 – 48).**

As to claim 36, Chapman is silent with reference to a cascade of two brokers.

Tokmakoff teaches a cascade of two brokers (Figure 5 page 47 section VII). It would have been obvious to apply to the teaching of Tokmakoff to the system of Chapman. One would have been motivated to make such a modification to provide services that are brokered by Traders operating in separate domains (Figure 5 page 47 section VII).

As to claim 37, see the rejection of claim 36.

As to claim 47, Chapman is silent with reference to an object of the type DO being initiated from an object template called Dynamic Object Implementation.

Tokmakoff teaches introducing object type designated DO and all proxies being of the DO type and an object of the type DO being initiated from an object template called Dynamic Object Implementation (page 46 section VI). It would

Art Unit: 2126

have been obvious to apply the teaching of Tokmakoff to the system of Chapman. One would have motivated to make such modification to allow objects to request services using a trader (pages 46 section VI).

As to claim 48, see the rejection of claim 47.

**Claims 50 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chapman et al. in "An overview of the Telecommunications Information Networking Architecture" (pages 135 – 141) in view of U.S. Pat. No. 6,330,586 B1 to Yates et al. as applied to claim 49 above, and further in view of Eckert et al. "TANGRAM: Development of Object-Oriented Frameworks for TINA-C-Based Multimedia Telecommunication Applications".**

As to claim 50, Chapman as modified is silent with reference to grouping of objects into clusters, capsules and nodes is performed, all objects, clusters, capsules and nodes perceived as being located in same domain and application designer adding specific programming code and executing the linking and compilation.

Eckert teaches grouping of objects into clusters, capsules and nodes is performed, all objects, clusters, capsules and nodes perceived as being located in same domain and application designer adding specific programming code and executing the linking and compilation (Configuration Manager page 49 lines 7 – 35). It would have been obvious to apply the teaching of Eckert to the system of Chapman as modified. One would have been motivated to make such a

Art Unit: 2126

modification in order provide object creation, initialization execution and termination (page 49 lines 15 – 35).

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E Anya whose telephone number is (703) 305-3411. The examiner can normally be reached on M-F (8:30-5:30) First Friday off.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Charles E Anya  
Examiner  
Art Unit 2126

